Dolomite - CaMg(CO₃)₂

Hardness: 3.5 - 4. Cleavage: Perfect. Slowly soluble in cold acids (but less vigorously than calcite); faster in warm acids. Only very slowly attacked by cold concentrated citric acid and may tolerate acetic acid. Formic acid, acetic acid or citric acid sometimes recommended for cleaning. Acetic acid-based lime removing products may also work; lime removers based on citric acid are milder and may also be effective (said to attack some carbonate deposits without etching dolomite). When in doubt treat as calcite. Etched by EDTA, citrate (in Iron OUT, Waller's solution and Bridge's solution) and other chelators. Derust with pure sodium dithionite or Jacquard Hydro. Derusting by brief immersion in dilute HCl sometimes recommended but this derusts by etching and should be avoided if possible. A quick dip in dilute acid may remove minor surface blemished but tends to produce a rounded, melted appearance if immersed too long.

References

Mindat: https://www.mindat.org/min-1304.html

Handbook of Mineralogy: https://www.handbookofmineralogy.org/pdfs/dolomite.pdf

Gol, D. (2004b) Removing iron oxides. Le Regne Mineral, 59 (5), 48-50. In French.

Hardinger, S. (2025) Mineral Specimen Cleaning and Development for the Amateur, 339 p.

Hardinger, S. (2024a) Selective removal of carbonates: A preliminary study.

www.mindat.org/a/hardinger005

Rohner, T. (2000) Properly clean minerals online cleaning book.

http://www.strahlen.org/stepbystep/mineralien-reinigung2.pdf. In German.

Sinkankas, J. (1972) Gemstone & Mineral Data Book, 346 p. Winchester Press, New York.

Sury, E. (1991) Cleaning Minerals Properly: A Guide to the Cleaning and Conservation of Minerals, 66 p. Sektion Basel SVSM, Basel. In German.